FIGURE 1

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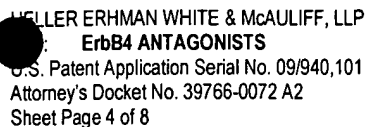
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FIGURE 2

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FIGURE 3

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FIGURE 4

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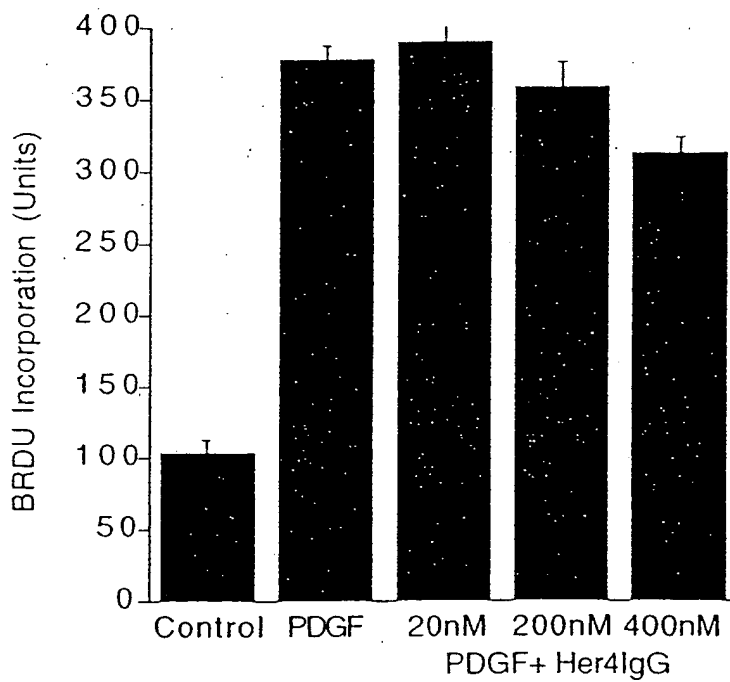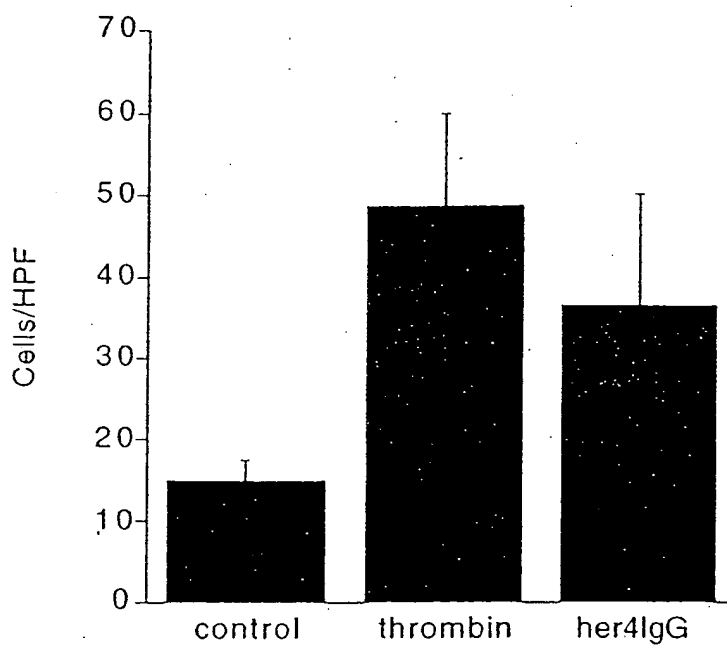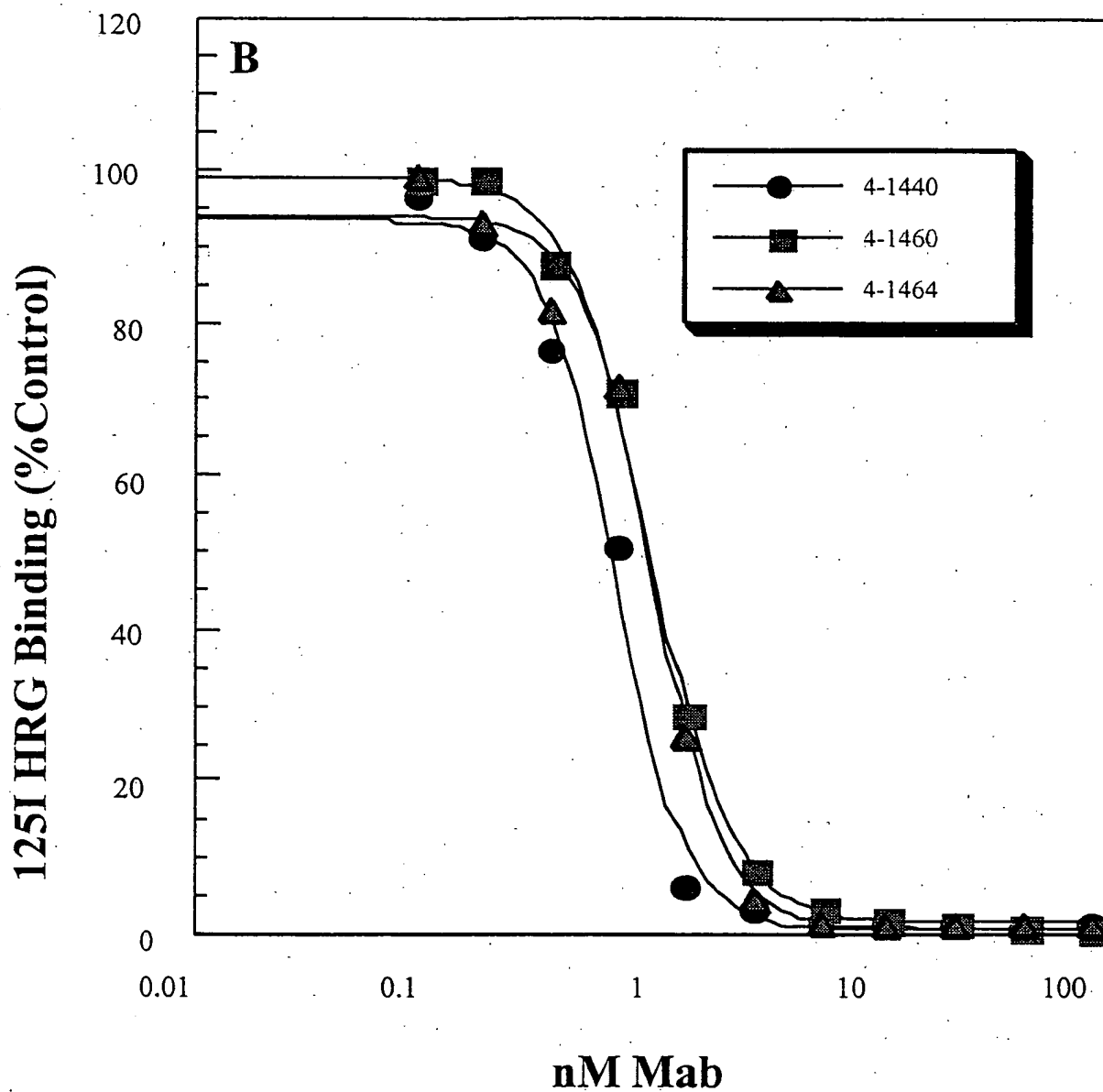
FIG. 5

FIG. 6

Figure 7

FIGURE 1

```
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3121  atcccacctc ccatctatac ttccagagca agaattgact cgaataggag tgaaattgga
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3241  ggttttgctg ctgaacaagg agtgtctgtg ccctacagag ccccaactag cacaattcca
3301  gaagctcctg tggcacaggg tgctactgct gagattttg atgactcctg ctgtaatggc
3361  accctacgca agccagtggc accccatgtc caagaggaca gtagcaccca gaggtacagt
3421  gctgacccca ccgtgtttgc cccagaacgg agcccacgag gagagctgga tgaggaaggt
3481  tacatgactc ctatgcgaga caaacccaaa caagaatacc tgaatccagt ggaggagaac
```

```
3541 ccttttgttt ctcggagaaa aaatggagac cttcaagcat tggataatcc cgaatatcac
3601 aatgcatcca atggtccacc caaggccgag gatgagtatg tgaatgagcc actgtacctc
3661 aacacctttg ccaacacctt gggaaaagct gagtacctga agaacaacat actgtcaatg
3721 ccagagaagg ccaagaaagc gtttgacaac cctgactact ggaaccacag cctgccacct
3781 cggagcaccc ttcagcaccc agactacctg caggagtaca gcacaaaata tttttataaa
3841 cagaatgggc ggatccggcc tattgtggca gagaatcctg aatacctctc tgagttctcc
3901 ctgaagccag gcactgtgct gccgcctcca ccttacagac accggaatac tgtggtgtaa
3961 gctcagttgt ggttttttag gtggagagac acacctgctc caatttcccc accccccctct
4021 ctttctctgg tggtcttcct tctaccccaa ggccagtagt tttgacactt cccagtggaa
4081 gatacagaga tgcaatgata gttatgtgct tacctaactt gaacattaga gggaaagact
4141 gaaagagaaa gataggagga accacaatgt ttcttcattt ctctgcatgg gttggtcagg
4201 agaatgaaac agctagagaa ggaccagaaa atgtaaggca atgctgccta ctatcaaact
4261 agctgtcact ttttttcttt ttctttttct ttctttgttt cttttcttcct cttctttttt
4321 tttttttttt taaagcagat ggttgaaaca cccatgctat ctgttcctat ctgcaggaac
4381 tgatgtgtgc atatttagca tccctggaaa tcataataaa gtttccatta gaacaaaaga
4441 ataacatttt ctataacata tgatagtgtc tgaaattgag aatccagttt ctttccccag
4501 cagtttctgt cctagcaagt aagaatggcc aactcaactt tcataatttta aaaatctcca
4561 ttaaagttat aactagtaat tatgttttca acacttttttg gtttttttttca ttttgtttttg
4621 ctctgaccga ttcctttata tttgctcccc tattttttggc tttaatttct aattgcaaag
4681 atgtttacat caaagcttct tcacagaatt taagcaagaa atatttttaat atagtgaaat
4741 ggccactact ttaagtatac aatctttaaa ataagaaagg gaggctaata ttttttcatgc
4801 tatcaaatta tcttcacccct catcctttac attttttcaac atttttttttt ctccataaat
4861 gacactactt gataggccgt tggttgtctg aagagtagaa gggaaactaa gagacagttc
4921 tctgtggttc aggaaaacta ctgatacttt caggggtggc ccaatgaggg aatccattga
4981 actggaagaa acacactgga ttgggtatgt ctacctggca gatactcaga aatgtagttt
5041 gcacttaagc tgtaattta tttgttcttt ttctgaactc catttttggat tttgaatcaa
5101 gcaatatgga agcaaccagc aaattaacta atttaagtac attttttaaaa aaagagctaa
5161 gataaagact gtggaaatgc caaaccaagc aaattaggaa ccttgcaacg gtatccaggg
5221 actatgatga gaggccagca cattatcttc atatgtcacc tttgctacgc aaggaaattt
5281 gttcagttcg tatacttcgt aagaaggaat gcgagtaagg attggcttga attccatgga
5341 atttctagta tgagactatt tatatgaagt agaaggtaac tctttgcaca taaattggta
5401 taataaaaag aaaaacacaa acattcaaag cttagggata ggtccttggg tcaaaagttg
5461 taaataaatg tgaaacatct tctc
```

FIGURE 2

```
MKPATGLWVWVSLLVAAGTVQPSDSQSVCAGTENKLSSLSDLEQQYRALRKYYENCEVVMGN
LEITSIEHNRDLSFLRSVREVTGYVLVALNQFRYLPLENLRIIRGTKLYEDRYALAIFLNYR
KDGNFGLQELGLKNLTEILNGGVYVDQNKFLCYADTIHWQDIVRNPWPSNLTLVSTNGSSGC
GRCHKSCTGRCWGPTENHCQTLTRTVCAEQCDGRCYGPYVSDCCHRECAGGCSGPKDTDCFA
CMNFNDSGACVTQCPQTFVYNPTTFQLEHNFNAKYTYGAFCVKKCPHNFVVDSSSCVRACPS
SKMEVEENGIKMCKPCTDICPKACDGIGTGSLMSAQTVDSSNIDKFINCTKINGNLIFLVTG
IHGDPYNAIEAIDPEKLNVFRTVREITGFLNIQSWPPNMTDFSVFSNLVTIGGRVLYSGLSL
LILKQQGITSLQFQSLKEISAGNIYITDNSNLCYYHTINWTTLFSTINQRIVIRDNRKAENC
TAEGMVCNHLCSSDGCWGPGPDQCLSCRRFSRGRICIESCNLYDGEFREFENGSICVECDPQ
CEKMEDGLLTCHGPGPDNCTKCSHFKDGPNCVEKCPDGLQGANSFIFKYADPDRECHPCHPN
CTQGCNGPTSHDCIYYPWTGHSTLPQHARTPLIAAGVIGGLFILVIVGLTFAVYVRRKSIKK
KRALRRFLETELVEPLTPSGTAPNQAQLRILKETELKRVKVLGSGAFGTVYKGIWVPEGETV
KIPVAIKILNETTGPKANVEFMDEALIMASMDHPHLVRLLGVCLSPTIQLVTQLMPHGCLLE
YVHEHKDNIGSQLLLNWCVQIAKGMMYLEERRLVHRDLAARNVLVKSPNHVKITDFGLARLL
EGDEKEYNADGGKMPIKWMALECIHYRKFTHQSDVWSYGVTIWELMTFGGKPYDGIPTREIP
DLLEKGERLPQPPICTIDVYMVMVKCWMIDADSRPKFKELAAEFSRMARDPQRYLVIQGDDR
MKLPSPNDSKFFQNLLDEEDLEDMMDAEEYLVPQAFNIPPPIYTSRARIDSNRSEIGHSPPP
AYTPMSGNQFVYRDGGFAAEQGVSVPYRAPTSTIPEAPVAQGATAEIFDDSCCNGTLRKPVA
PHVQEDSSTQRYSADPTVFAPERSPRGELDEEGYMTPMRDKPKQEYLNPVEENPFVSRRKNG
DLQALDNPEYHNASNGPPKAEDEYVNEPLYLNTFANTLGKAEYLKNNILSMPEKAKKAFDNP
DYWNHSLPPRSTLQHPDYLQEYSTKYFYKQNGRIRPIVAENPEYLSEFSLKPGTVLPPPPYR
HRNTVV
```

FIGURE 3

```
ccaatcgatttcgcggcaaagaccttccggtcctggaccagctgctcgagcagtcagtgtgtgcagga
acggagaataaactgagctctctctctgacctggaacagcagtaccgagccttgcgcaagtactatga
aaactgtgaggttgtcatgggcaacctggagataaccagcattgagcacaaccgggacctctccttcc
tgcggtctgttcgagaagtcacaggctacgtgttagtggctcttaatcagtttcgttacctgcctctg
gagaatttacgcattattcgtgggacaaaactttatgaggatcgatatgccttggcaatattttaaa
ctacagaaaagatggaaactttggacttcaagaacttggattaaagaacttgacagaaatcctaaatg
gtggagtctatgtagaccagaacaaattcctttgttatgcagacaccattcattggcaagatattgtt
cggaacccatggccttccaacttgactcttgtgtcaacaaatggtagttcaggatgtggacgttgcca
taagtcctgtactggccgttgctggggacccacagaaaatcattgccagactttgacaaggacggtgt
gtgcagaacaatgtgacggcagatgctacggaccttacgtcagtgactgctgccatcgagaatgtgct
ggaggctgctcaggacctaaggacacagactgctttgcctgcatgaatttcaatgacagtggagcatg
tgttactcagtgtccccaaacctttgtctacaatccaaccacctttcaactggagcacaatttcaatg
caaagtacacatatggagcattctgtgtcaagaaatgtccacataactttgtggtagattccagttct
tgtgtgcgtgcctgccctagttccaagatggaagtagaagaaatgggattaaaatgtgtaaaccttg
cactgacatttgcccaaaagcttgtgatggcattggcacaggatcattgatgtcagctcagactgtgg
attccagtaacattgacaaattcataaactgtaccaagatcaatgggaatttgatctttctagtcact
ggtattcatggggacccttacaatgcaattgaagccatagacccagagaaactgaacgtctttcggac
agtcagagagataacaggtttcctgaacatacagtcatggccaccaaacatgactgacttcagtgttt
tttctaacctggtgaccattggtggaagagtactctatagtggcctgtccttgcttatcctcaagcaa
cagggcatcacctctctacagttccagtccctgaaggaaatcagcgcaggaaacatctatattactga
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tagtaatccgggacaacagaaaagctgaaaattgtactgctgaaggaatggtgtgcaaccatctgtgt
tccagtgatggctgttggggacctgggccagaccaatgtctgtcgtgtcgccgcttcagtagaggaag
gatctgcatagagtcttgtaacctctatgatggtgaatttcgggagtttgagaatggctccatctgtg
tggagtgtgaccccagtgtgagaagatggaagatggcctcctcacatgccatggaccgggtcctgac
aactgtacaaagtgctctcattttaaagatggcccaaactgtgtggaaaaatgtccagatggcttaca
gggggcaaacagtttcattttcaagtatgctgatccagatcgggagtgccacccatgccatccaaact
gcacccaagggtgtaacggtcccactagtcatgactgcatttactacccatggacgggcacgcgtgac
aaaactcacacatgcccaccgtgcccagcacctgaactcctggggggaccgtcagtcttcctcttccc
cccaaaacccaaggacaccctcatgatctcccggacccctgaggtcacatgcgtggtggtggacgtga
gccacgaagaccctgaggtcaagttcaactggtacgtggacggcgtggaggtgcataatgccaagaca
aagccgcgggaggagcagtacaacagcacgtaccgggtggtcagcgtcctcaccgtcctgcaccagga
ctggctgaatggcaaggagtacaagtgcaaggtctccaacaaagccctcccagcccccatcgagaaaa
ccatctccaaagccaaagggcagccccgagaaccacaggtgtacaccctgcccccatcccgggaagag
atgaccaagaaccaggtcagcctgacctgcctggtcaaaggcttctatcccagcgacatcgccgtgga
gtgggagagcaatgggcagccggagaacaactggcccaccccttggcttacaagaccacgcctcccg
tgctggactccgacggctccttcttcctctacagcaagctcaccgtggacaagagcaggtggcagcag
gggaacgtcttctcatgctccgtgatgcatgaggctctgcacaaccactacacgcagaagagcctctc
cctgtctccgggtaaat
```

FIGURE 4

QSVCAGTENKLSSLSDLEQQYRALRKYYENCEVVMGNLEITSIEHNRDLSFLRSVREVTGYV
LVALNQFRYLPLENLRIIRGTKLYEDRYALAIFLNYRKDGNFGLQELGLKNLTEILNGGVYV
DQNKFLCYADTIHWQDIVRNPWPSNLTLVSTNGSSGCGRCHKSCTGRCWGPTENHCQTLTRT
VCAEQCDGRCYGPYVSDCCHRECAGGCSGPKDTDCFACMNFNDSGACVTQCPQTFVYNPTTF
QLEHNFNAKYTYGAFCVKKCPHNFVVDSSSCVRACPSSKMEVEENGIKMCKPCTDICPKACD
GIGTGSLMSAQTVDSSNIDKFINCTKINGNLIFLVTGIHGDPYNAIEAIDPEKLNVFRTVRE
ITGFLNIQSWPPNMTDFSVFSNLVTIGGRVLYSGLSLLILKQQGITSLQFQSLKEISAGNIY
ITDNSNLCYYHTINWTTLFSTINQRIVIRDNRKAENCTAEGMVCNHLCSSDGCWGPGPDQCL
SCRRFSRGRICIESCNLYDGEFREFENGSICVECDPQCEKMEDGLLTCHGPGPDNCTKCSHF
KDGPNCVEKCPDGLQGANSFIFKYADPDRECHPCHPNCTQGCNGPTSHDCIYYPWTG
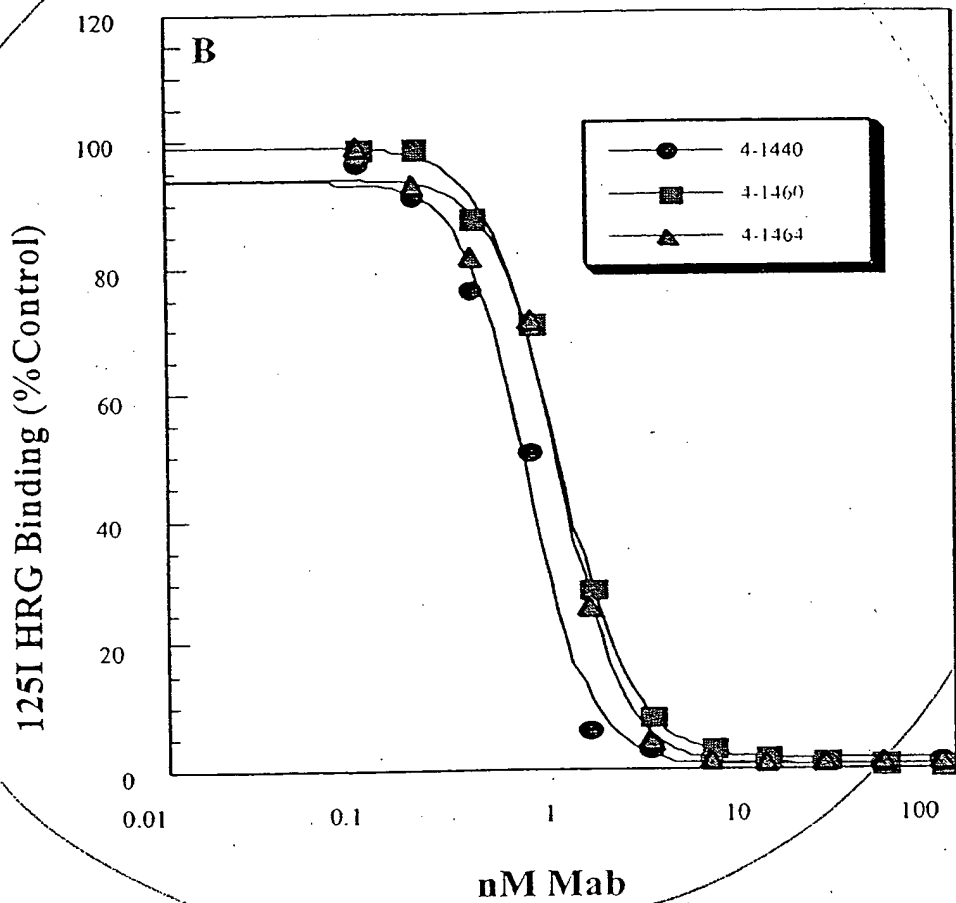
W:\DOCS\GRD\FIGURES-GENENT.072A2
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enlarged

FIG. 7

enlarged